Dept. of Biological Sciences, University of Toronto Scarborough

BIOB50 (Ecology) Syllabus, Fall 2019

Prof. Péter Molnár

Course description

BIOB50 provides an introduction to the main principles of ecology, the science of the interactions of organisms with each other and with their environment. The course covers community and population ecology, and provides an emphasis on how ecology relates to other areas of biology, and to contemporary human and environmental issues.

Course information

Instructor:

Dr. Péter Molnár

Office: SY548

Office hours: TBA

Email: peter.molnar@utoronto.ca (**please put BIOB50 in the subject line**)

Phone: 416-208-2247

Teaching Assistants:

Stephanie Penk, sr.penk@mail.utoronto.ca

Natalia Sandoval Herrera, natalia.sandovalherrera@mail.utoronto.ca

Andrew Nichols, andrew.nichols@mail.utoronto.ca

Course coordinator:

Jennifer Campbell, jacampbell@utsc.utoronto.ca

Office: SW421D, Office hours: TBA

Lecture times & location:

Tuesdays, 4-6pm, Academic Centre (AC) 223.

See below for tentative lecture schedule.

Tutorials:

The tutorial slot is shared with BIOB10 (Cell Biology) and BIOB34 (Animal Physiology), and will also be used for the Integrative Research Poster Project. Only one of these slots will be used for BIOB50 (Thursday, Oct 24, 5-7pm), when we will review key materials to practice for the midterm.

Textbook:

Bowman, W.D., Hacker, S.D., Cain, M.L. *Ecology – 4th edition*. Sinauer Associates, Inc.

Course resources

Course Website: All lecture slides will be posted on Quercus before the lecture. Additional announcements may be made on Quercus, as well, so please check the course website regularly.

Textbook & Course Readings: Textbook readings (Bowman, W.D., Hacker, S.D., Cain, M.L. *Ecology – 4th edition*. Sinauer Associates, Inc.) will be announced at least one week before each lecture and will broadly follow the tentative lecture schedule that is outlined below. Additional readings from the primary literature will also be assigned at times. Lectures will be used to reinforce and discuss the assigned readings, as well as to introduce some additional concepts and examples that may not be covered in the textbook, **so it is to your benefit to come prepared and complete all readings before each lecture (cf. also 'Evaluation: Online quizzes'). Students are responsible for knowing both the lecture material and all assigned readings.**

Textbook website: Sinauer offers a website accompanying the textbook at https://ecology4e.sinauer.com/. Here, you will find chapter summaries, hands-on practice problems, flashcards for studying, additional readings and many other things. You are encouraged to use this resource for studying, but be aware that (a) not everything that is in the textbook is covered in the course, and (b) lectures provide additional information that is not covered by the textbook.

Facilitated Study Groups (FSGs):

BIOB50 is supported by Facilitated Study Groups. These weekly study sessions are open to everyone in the class. Attendance is voluntary, but students who attend regularly often earn higher grades. If you have any questions, please ask your facilitator, or visit the FSG website at http://ctl.utsc.utoronto.ca/home/fsg. Your FSG coordinator is Siddiq Mirza, siddiqahmed.mirza@mail.utoronto.ca

Quercus Discussion Group:

If you have conceptual questions regarding the course content, please check the Quercus Discussion Group or email one of the TAs if your question has not been answered yet. Often, a lot of students will have the same question, so TAs will answer the most common questions on the Quercus Discussion Group that is available on the course website.

How to Get Help with the Course:

First, check this syllabus and the course website! You will find the answer to almost all procedural questions here. If you have a question that is not answered by either the syllabus or the course website, contact the course coordinator, Jennifer Campbell (jacampbell@utsc.utoronto.ca), for all **procedural questions**. For **conceptual questions regarding the lecture**, make use of the Quercus Discussion group and/or email either the instructor. For **conceptual questions regarding the assigned readings**, make use of the Quercus Discussion group and/or email either the assigned TA (Natalia Sandoval). For **conceptual**

questions regarding the tutorial, make use of the Quercus Discussion group and/or email either the assigned TA (Stephanie Penk). TAs and the instructor will respond to all emails in a reasonably timely manner, Monday through Friday, but will not respond to questions where the answer is found in the syllabus and/or when the question has already been answered on Quercus. When emailing us, **please use your UTOR email only** (as hotmail, gmail and other email providers are spam-filtered on a regular basis), and **please begin your subject line with "*BIOB50: <subject>*" to make sure emails are not overlooked.** It is the responsibility of the student to adhere to these instructions and make sure his or her email reaches the instructor.

Tentative Lecture Schedule

Date	Lecture	Topic	Chapter*
Sep 3	1	Course Introduction / The Science of Ecology	1
	2		
Sep 10	3	Organisms & their environment	2-4
	4		
Sep 17	5	The "common currency" of energy / Life history	5, 7
	6		
Sep 24	7	Populations 1-2	9-11
	8		
Oct 1	9	Populations 3	9-11
	10		
Oct 8	11	Competition	14
	12		
Oct. 12-20	**Reading week**		
Oct 22	13	Predation & Herbivory	12
	14		
Oct 29	15	Parasitism & Disease	13
	16		
Nov 5	17	Mutualism & Commensalism / Food webs	15, 21
	18		
Nov 12	19	Communities & Change in communities	16, 17
	20		
Nov 19	21	Species diversity, niches / Biogeography	18, 19
	22		
Nov 26	23	Global change	24, 25
	24		

* The book chapters provided here are to be considered a rough roadmap. Precise readings will be assigned one week prior to each lecture.

Evaluation

There will be one midterm and one final exam, with the dates to be arranged by the Registrar's Office and announced as soon as they are known. Short, multiple-choice quizzes posted on Quercus will test your comprehension of textbook readings each week before the lecture. Further, there will be an Integrative Research Poster Project highlighting connections between the B-level courses that are taking place in the fall: BIOB10, BIOB34, BIOB50.

Marks breakdown:

Integrative Research Poster Project	10%
Quizzes	5%
Midterm exam	35%
Final exam	50%

Quizzes:

Textbook and other readings will be assigned one week prior to each lecture. **Students are expected to complete these readings before lecture in order to allow classroom discussions on the material.** Short online quizzes will test your comprehension of the assigned readings and will also be posted on Quercus each week. There will be ten quizzes in total, each worth 0.5% of your mark. Quizzes will generally be posted no later than Wednesday evening, **and must be completed by Tuesday 3pm, i.e. before each lecture.** If a student fails to complete the quiz by the deadline, a mark of zero will be assigned for that quiz; no extensions will be granted regardless of the reasons for missing the quiz**.**

Midterm & Final:

Both exams will aim to test your knowledge regarding the topics covered in the lecture and assigned course readings, as well as your ability to think critically and apply the learned concepts to novel situations and problems. As such, both tests will be a combination of multiple choice questions and short answer questions. The final exam will cover all materials discussed throughout the course, but will emphasize the materials covered after the midterm.

Missed exams:

Students who miss the midterm exam for reasons entirely beyond their control may, within three (3) days of the missed test, submit a written request for special consideration to the course coordinator (Jennifer Campbell), explaining the reasons for missing the test and attaching appropriate documentation. If it is then determined that you had a valid reason for missing the midterm, you will be permitted to write a make-up midterm exam (usually within 1-2 weeks of the missed exam). If you know that you will miss the test prior to the exam, contact the course coordinator immediately.

If you miss the final exam, you must contact the UTSC's Registrar's Office with appropriate documentation to request a deferred exam. For details and deadlines, refer

to http://www.utsc.utoronto.ca/registrar/deferred-exams and http://www.utsc.utoronto.ca/registrar/missing-examination.

Integrative Research Poster Project:
This project is a research project that integrates concepts across the B-level Biology courses (i.e. BIOB10, BIOB34, BIOB50), and culminates in a conference-style poster presentation to your peers. The details of this project are outlined in a separate syllabus posted on Quercus.

AccessAbility

Everyone is a welcome member of this class, and we strive to provide an equal playing field for students with diverse learning styles and needs. In particular, if you have a disability/health consideration that may require accommodations, please contact the AccessAbility office as soon as possible. They will provide confidential services that include flexible, personalized solutions for test-taking, note-taking, and similar issues. The AccessAbility office is located in AA142 and can be reached at: (416) 287-7560 or ability@utsc.utoronto.ca. Please see their website at https://www.utsc.utoronto.ca/~ability/ for more information.

Academic Integrity

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's *Code of Behaviour on Academic Matters* outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:

- using someone else's ideas or words in their own work without appropriate acknowledgment.
- including false, misleading or concocted citations in your work.
- obtaining unauthorized assistance on any assignment.
- providing unauthorized assistance to another student. This includes showing another student completed work.
- submitting your own work for credit in more than one course without the permission of the instructor
- falsifying or altering any documentation required by the University. This includes, but is not limited to, doctor's notes.
- using or possessing an unauthorized aid in any test or exam.

The learning environment is built on mutual trust, and we will assume that all students operate with honesty and integrity. However, in the rare cases where there is evidence that the University of Toronto's Code of Behaviour on Academic Matters has been

compromised, I will enact the procedures outlined in the Code of Behaviour on Academic Matters. First, I will invite you to discuss the possible offence through an email invitation. If our discussion leads me to believe that you have not compromised the code, then the matter will be dropped. If either you fail to respond to two requests for this discussion or new evidence comes to light, then a formal investigation will be initiated, and a penalty according to the U of T's guidelines on sanctions will be put into place.

Audio/video recordings

For reasons of privacy and protection of copyright, audio or video recordings of lectures and tutorials are not permitted.